

REMARKS

Entry of the foregoing and reconsideration of the application identified in caption, as amended, pursuant to and consistent with 37 C.F.R. §1.111 and in light of the remarks which follow, are respectfully requested.

By the above amendments, claim 7 has been canceled without prejudice or disclaimer. Claims 1-6 and 8-18 have been amended for readability and/or clarification purposes. In view of the Examiner's requirement to delete non-elected subject matter from claim 1, such claim has been amended to recite that with respect to the alkyl radical bearing an aromatic substituent comprising at least one N atom, "the aromatic substituent is not imidazolyl or pyridyl." Claim 16 has been amended by replacing the phrase "that may be used", with "suitable for use".

Claims 1-18 stand objected to for containing non-elected subject matter, and claim 15 stands objected to for omitting the word "or." These objections are moot in view of the above amendments and as such, withdrawal of the objections is respectfully requested.

Claims 16-18 stand rejected under 35 U.S.C. §112, first paragraph, as failing to comply with the enablement requirement. Without addressing the propriety of the Examiner's comments, it is noted that claim 16 has been amended to replace the objected-to phrase "that may be used", with "suitable for use". That is, such claim does not recite a method for treatment of osteoporosis or relapses of lytic tumors; rather, the composition is suitable for use in such treatment. Respectfully, there is nothing improper with the recitation that the composition of claim 16 is suitable for use by injection for the treatment of osteoporosis or relapses of lytic tumors by

inhibition of osteoclast activity. Accordingly, withdrawal of the §112, first paragraph, rejection is respectfully requested.

Claims 1-18 stand rejected under 35 U.S.C. §102(b) as being anticipated by (1) *Bikhman et al*, CAS: 94:1762; (2) *Kostromina et al*, CAS: 136:75305; (3) *Cohen et al*, CAS: 129:49620; or (4) *Zaheer et al*, CAS: 136:163487. Withdrawal of this rejection is respectfully requested for at least the following reasons.

Independent claim 1 is directed to a phosphocalcic compound, having the following chemical composition: $\text{Ca}_{(10-a)} (\text{Mg}, \text{K}, \text{Na})_b (\text{PO}_4)_{6-c} (\text{HPO}_4, \text{CO}_3)_d (\text{OH})_{2-e} (\text{F}, \text{Cl}, \text{CO}_3)_f [(\text{OA}) (\text{OE}) \text{P} (\text{O}) -\text{CR}^1\text{R}^2-\text{P}(\text{O}) (\text{OA}) (\text{OE})]_g$, in which $0 < a < 9$; $0 < b < 2$; $0 < c < 5$; $0 < d < 2$; $0 < e < 2$; $0 < f < 2$; $g < 0.5$, A and E represent H, an alkali metal, an alkaline-earth metal or nothing, R^1 represents H, OH or a halogen and R^2 represents an element chosen from a hydrogen, a halogen, an alkyl radical, an aminoalkyl radical in which the amino group optionally bears an alkyl substituent, an alkylaminoradical, an alkyl radical bearing an aromatic substituent comprising at least one N atom wherein the aromatic substituent is not imidazolyl or pyridyl, and an alkyl radical bearing an aromatic thioether group.

It is well established that "[a] claim is anticipated only if each and every element as set forth in the claim is found, either expressly or inherently described, in a single prior art reference." *Verdegaal Bros. v. Union Oil Co. of California*, 2 USPQ2d 1051, 1053 (Fed. Cir. 1987). For an anticipation to exist, "[t]he identical invention must be shown in as complete detail as is contained in the . . . claim." *Richardson v. Suzuki Motor Co.*, 9 USPQ2d 1913, 1920 (Fed. Cir. 1989). In the present case, each of the applied documents relied on by the Examiner fails to

disclose the claimed phosphocalcic compound of claim 1, and as such fails to constitute an anticipation of such claim.

In this regard, it is noted that the recited chemical composition includes the structure $(\text{PO}_4)_{6-c}$, wherein $0 < c < 5$. Thus, the recited chemical composition includes at least one PO_4 group. The *Bikhman et al* compound, on the other hand, does not contain any PO_4 group; rather, $c=6$ in the *Bikhman et al* compound. As such, it is apparent that the claimed phosphocalcic compound is not anticipated by the *Bikhman et al* compound.

The *Kostromina et al* compound is similar to the compound disclosed by *Bikhman et al*, except that K is employed instead of Mg. Like *Bikhman et al*, the *Kostromina et al* compound does not include any PO_4 group, that is, $c=6$ in such compound.

Concerning *Cohen et al*, none of the compounds disclosed therein includes a PO_4 group or calcium. In this regard, it is noted that the recited chemical composition includes the structure $\text{Ca}_{(10-a)}$, wherein $0 < a < 9$. Thus, the claimed phosphocalcic compound includes at least one Ca.

With regard to *Zaheer et al*, it is noted that the compounds disclosed therein do not include calcium. As discussed above, in view of the recited condition $0 < a < 9$, the claimed phosphocalcic compound includes at least one Ca. However, this feature is not found in the *Zaheer et al* compounds.

For at least the above reasons, it is apparent that the compounds disclosed by *Bikhman et al*, *Kostromina et al*, *Cohen et al*, and *Zaheer et al* fail to anticipate the compound of independent claim 1. Accordingly, withdrawal of the above rejection is respectfully requested.

Claims 16-18 stand provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being obvious over claim 1 of U.S. Patent No. 7,351,280 (*Khairoun et al*). Withdrawal of this rejection is respectfully requested for at least the following reasons.

"[R]ejections on obviousness grounds cannot be sustained by mere conclusory statements; instead, there must be some articulated reasoning with some rational underpinning to support the legal conclusion of obviousness." *KSR International Co. v. Teleflex Inc.*, 82 USPQ2d 1385, 1396 (2007), citing *In re Kahn*, 78 USPQ2d 1329, 1336 (Fed. Cir. 2006). In the present case, the Examiner has acknowledged that *Khairoun et al* is silent on the recited chemical composition. See Official Action at page 11. Concerning such deficiencies, the Examiner has taken the position that "one would be motivated to employ the processes of *Khairoun et al* to obtain the instant compositions, wherein phosphocalcic compounds are selected from BCP, CDA or α -TCP." See Official Action at page 12. Respectfully, this statement is merely conclusory and provides no articulated reasoning with rational underpinning as to why it would have been obvious to modify the *Khairoun et al* composition to arrive at the chemical composition of claim 1. "[I]n cases involving new chemical compounds, it remains necessary to identify some reason that would have led a chemist to modify a known compound in a particular manner to establish prima facie obviousness of a new claimed compound." *Takeda Chem. Indus., Ltd. v. Alphapharm Pty., Ltd.*, 492 F.3d 1350 (Fed. Cir. 2007). Simply put, no adequate reason has been identified that would have led a chemist to modify a the *Khairoun et al* composition to arrive at the claimed compound having the recited chemical composition.

For at least the above reasons, it is apparent that claim 16 is not obvious over claim 1 of *Khairoun et al.* Accordingly, withdrawal of the above obviousness-type double patenting rejection is respectfully requested.

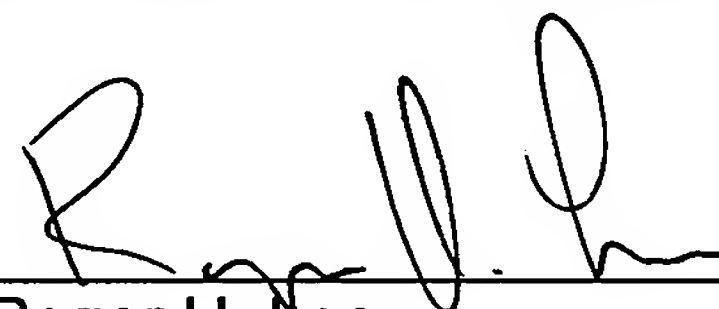
From the foregoing, further and favorable action in the form of a Notice of Allowance is believed to be next in order, and such action is earnestly solicited. If there are any questions concerning this paper or the application in general, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

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